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SERVICE MANUAL

Monochrome Page Printer

EPSON EPL-5700L/5700i

COLOR IMAGING EPSON

EPSON®

SEPG99007

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PRECAUTIONS

Precautionary notations throughout the text are categorized relative to 1) Personal injury and 2) Damage to equipment.

DANGER Signals a precaution which, if ignored, could result in serious or fatal personal injury. Great caution should be exercised in performing procedures preceded by DANGER Headings.

WARNING Signals a precaution which, if ignored, could result in damage to equipment.

The precautionary measures itemized below should always be observed when performing repair/maintenance procedures.

DANGER

1. ALWAYS DISCONNECT THE PRODUCT FROM THE POWER SOURCE AND PERIPHERAL DEVICES WHEN PERFORMING ANY MAINTENANCE OR REPAIR PROCEDURES.
2. NO WORK SHOULD BE PERFORMED ON THE UNIT BY PERSONS UNFAMILIAR WITH BASIC SAFETY MEASURES AS DICTATED FOR ALL ELECTRONICS TECHNICIANS IN THEIR LINE OF WORK.
3. WHEN PERFORMING TESTING AS DICTATED WITHIN THIS MANUAL, DO NOT CONNECT THE UNIT TO A POWER SOURCE UNTIL INSTRUCTED TO DO SO. WHEN THE POWER SUPPLY CABLE MUST BE CONNECTED, USE EXTREME CAUTION IN WORKING ON POWER SUPPLY AND OTHER ELECTRONIC COMPONENTS.

WARNING

1. REPAIRS ON EPSON PRODUCT SHOULD BE PERFORMED ONLY BY AN EPSON CERTIFIED REPAIR TECHNICIAN.
2. MAKE CERTAIN THAT THE SOURCE VOLTAGES IS THE SAME AS THE RATED VOLTAGE, LISTED ON THE SERIAL NUMBER/RATING PLATE. IF THE EPSON PRODUCT HAS A PRIMARY AC RATING DIFFERENT FROM AVAILABLE POWER SOURCE, DO NOT CONNECT IT TO THE POWER SOURCE.
3. ALWAYS VERIFY THAT THE EPSON PRODUCT HAS BEEN DISCONNECTED FROM THE POWER SOURCE BEFORE REMOVING OR REPLACING PRINTED CIRCUIT BOARDS AND/OR INDIVIDUAL CHIPS.
4. IN ORDER TO PROTECT SENSITIVE MICROPROCESSORS AND CIRCUITRY, USE STATIC DISCHARGE EQUIPMENT, SUCH AS ANTI-STATIC WRIST STRAPS, WHEN ACCESSING INTERNAL COMPONENTS.
5. REPLACE MALFUNCTIONING COMPONENTS ONLY WITH THOSE COMPONENTS BY THE MANUFACTURE; INTRODUCTION OF SECOND-SOURCE ICs OR OTHER NONAPPROVED COMPONENTS MAY DAMAGE THE PRODUCT AND VOID ANY APPLICABLE EPSON WARRANTY.

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PREFACE

This manual describes basic functions, theory of electrical and mechanical operations, maintenance and repair procedures of EPL-5700L/5700i. The instructions and procedures included herein are intended for the experienced repair technicians, and attention should be given to the precautions on the preceding page. The chapters are organized as follows:

CHAPTER 1. PRODUCT DESCRIPTIONS

Provides a general overview and specifications of the product.

CHAPTER 2. OPERATING PRINCIPLES

Describes the theory of electrical and mechanical operations of the product.

CHAPTER 3. TROUBLESHOOTING

Provides the step-by-step procedures for troubleshooting.

CHAPTER 4. DISASSEMBLY AND ASSEMBLY

Describes the step-by-step procedures for disassembling and assembling the product.

CHAPTER 5. ADJUSTMENTS

Provides Epson-approved methods for adjustment.

CHAPTER 6. MAINTENANCE

Provides preventive maintenance procedures and the lists of Epson-approved lubricants and adhesives required for servicing the product.

CHAPTER 7. APPENDIX

Provides the following additional information for reference:

- ***Connector Pin Assignments***
- ***Circuit Board Component Layout***
- ***Exploded Diagrams and ASP List***
- ***Circuit Diagram***

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Revision Status

Revision	Issued Date	Description
A	September 2, 1999	First Release

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CHAPTER

1

PRODUCT DESCRIPTION

1.1 FEATURES

The following shows features of EPL-5700L/5700i.

ENGINE

- Compact, lightweight A4 engine
- 600 dpi resolution, 8 ppm printing speed
- Standard paper feeding is by a cassette-like universal paper tray (150 sheets) and a manual feed tray (1 sheet).
- Optional paper feeding is by a A4 or LT lower paper feeder unit (500 sheets).

CONTROLLER

- A newly developed host-based controller
  - CPU: TMP95C001, TOSHIBA
  - EDO RAM or FastPage RAM (60 ns)
- Interface
  - ECP compatible parallel I/F which conforms to IEEE 1284
  - USB interface
- Mounted with RITech, Enhanced MicroGray

  An underline error may occur when printing a complicated image with 600 dpi Enhanced MicroGray printing.
- Mounted with Toner Save Mode
- Mounted with bi-directional I/F (IEEE1284)
  - A host -based printer is possible.
- Data compression technology
  - By sending compressed data from the host, printing with a 2MB memory is possible.
  - The compressed data is expanded in real-time by the expansion circuit and transferred to the engine.
  - Speed is enhanced by compressed data expansion hardware.
- The following functions can be upgraded and speed can be increased by RAM SIMM expansion.
  - Enhanced MicroGray printing
  - Receive buffer capacity
  - Printing speed

RESTRICTIONS / DIFFERENCES WITH EPL-5700

1. A network I/F, including external attachment cannot be used.
2. Fonts are not installed.
3. The emulation is not installed.
4. Only the Windows 95/98, Windows NT 4.0 and Macintosh operating systems (8.1 or later) are supported.
5. The ROP and fill methods change, so there may be differences in the output.
6. When using halftones, the printed image may be different.
7. There are differences with operation when “Toner out” occurs.
8. The driver UI is different.
9. It can only be connected to a Macintosh with a standard USB connection. Optional USB board is not guaranteed.
10. With the standard memory, printing at 600 dpi with MicroGray ON may not be possible. Also, for a host that is not capable of ECP communication, printing may not be possible with standard memory.
11. The printer status can be displayed on the screen and printing is possible upon user’s request.

12. The recommended host environments are:

    Windows:

    Pentium 233 MHz and 64 MB RAM or more

    Macintosh:

    G3 233 MHz and 64 MB RAM or more

13. For Windows NT 4.0, EPSON Printer Port Monitor must be installed to use ECP.
14. Even if the option RAM is expanded by 16 MB or more, only a maximum of 13 MB is valid.
15. When using parallel connection, printing is not possible if bi-directional communication is hindered by the following conditions.
    - There is a printer selecting switch between the PC and the printer for parallel connection.
    - Old PC that does not support bi-directional communication is used.
    - Unspecified cables are used.
16. If there is no paper in the MP tray, the paper size will become unclear.
17. Status sheet printing cannot be performed by the printer itself.
18. The printer cannot be shared in a Macintosh network.

1.2 BASIC SPECIFICATIONS

The EPL-5700L/5700i is a compact host-based A4 monochrome page printer that is driven by laser and digital photographic technology. The following shows basic specifications.

PROCESS

Print Method:	Dry Mono-component Electrophotographic Method
Light Source:	Semiconductor Laser
Photoelectric Unit:	OPC Drum (Organic Photoconductor)
Charge:	Rotating Brush Charging Type
Developer:	Exposed Section Developer System
Toner	Mono-component Nonmagnetic Toner
Transfer Method:	Roller Transfer
Fixing:	Heat Roller System
Density Regulator:	Developer Bias Variation System (can be regulated by user)
Resolution:	600 dpi

PRINTING SPEED

Printing Speed:	8 ppm (A4/B5/A5 Vertical Feed)
First Print:	19 seconds (A4 Vertical Feed)
	18.2 seconds (B5)
	17.3 seconds (A5)
Warm-up Time:	20 seconds or less (at 23 °C, standard voltage)

PRINTABLE AREA

Print Area: Area within margins of 4mm from each side (See Figure 1-1 below)

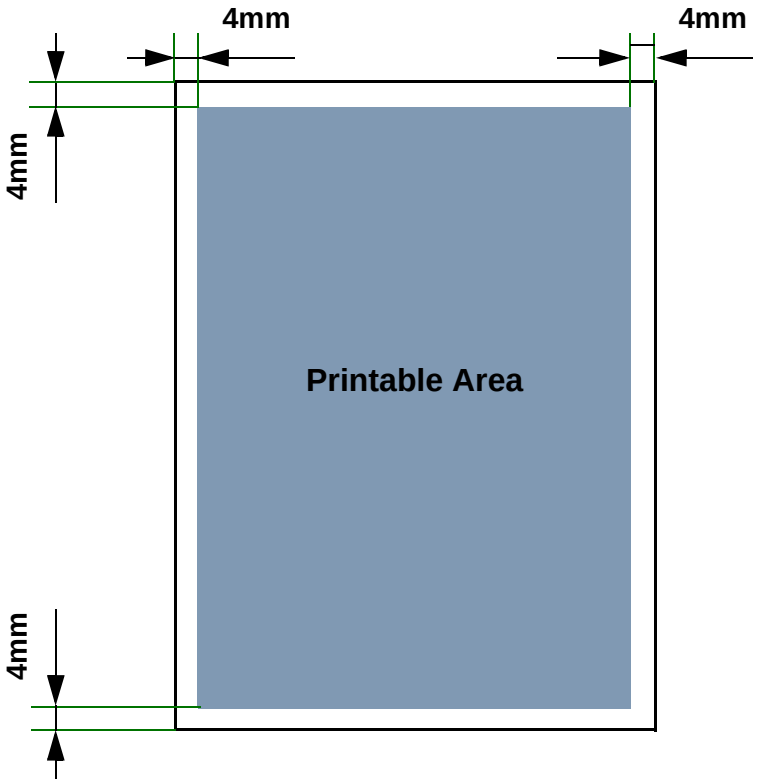

Figure 1-1. Printable Area

PAPER HANDLING

Paper Supply: 150-sheet Cassette-like Multipurpose Tray

Manual Feed Slot

Optional Cassette: 500-sheet A4 Lower Cassette Unit

Table 1-1. Paper Handling

Paper Supply	Capacity	Paper Size	Permissible Paper Thickness
Multipurpose Tray	150 sheets	76.2 x 127 to 215.9 x 355.6mm	60 to 90g/m^2 (16 to 24lb)
	50 sheets	Japanese Official Postcard	190g/m^2
	20 sheets	Japanese Official Postcard (when printing on back)	
	10 sheets	Envelope/Label OHP/Thick Page	Normal Paper: 60 to 90g/m^2 Thick Paper: 90 to 190g/m^2 Special Paper
Manual Feed Slot	1 sheet	100 x 148 to 215.9 x 355.6mm	Normal Paper: 60 to 90g/m^2 Thick Paper: 90 to 190g/m^2 Special Paper
Lower Cassette	500 sheets	A4	Normal Paper: 60 to 90g/m^2

Paper Output: Face-down

Face-up (when an optional hopper is used)

CONSUMABLES

Name: ET Cartridge

Photoconductor Unit

Life: ET Cartridge: Average of 3,000 sheets

OPC Drum: Average of 20,000 sheets

(at continuous printing on A4 page with print duty of 5%)

CONTROLLER SPECIFICATIONS

CPU: 16bit, 64pin, max 25MHz, CISC,

TMP95C001 (TOSHIBA)

RAM: Standard: 2MB (EDO)

Optional SIMM Slot: 1

32MB, 16MB, 8MB, 4MB (EDO)

(A maximum of 13MB is valid.)

ROM: Program: 512Kbytes

Host Interface: Standard: Centronics, Bi-directional Parallel

IEEE-1284 nibble

ECP compliant

USB: Serial

(No slot for the optional I/F)

SOFTWARE SPECIFICATIONS

This printer is host-based, namely, the host computer (printer driver) generates print images. Refer to the software guide for details.

ENVIRONMENTAL CONDITIONS

Temperature (including expendable parts):

Operation:	10 to 35 °C
Storage under normal conditions:	0 to 35 °C
Storage under extreme conditions:	-20 to 40 °C
(1/30 of the total holding period)	

Humidity (including expendable parts):

Operation:	15 to 85% without condensation
Storage under normal conditions:	30 to 85%
Storage under extreme conditions:	10 to 95%
(1/30 of the total holding period)	

ELECTRICAL SPECIFICATIONS

Power Supply Voltage:	100 ± 10%	
Power Supply Frequency:	50 to 60Hz ± 3Hz	
Standard Maximum Current:	6.3A	
Power Consumption:	Maximum:	580W
	Average during continuous printing:	200W
	Standby Mode (Heater On):	490W
	Standby Mode (Heater Off):	15W

AC Line Noise:	Pulse Width:	50 to 1,000ns
	Pulse Polarity:	±
	Repeat:	Non-simultaneous
	Mode:	Common/Normal
	Voltage:	1KV
	Parts can withstand up to 2KV without damage.	
Instant Cutoff:	DIP 100% (for standard voltage - 10%) for one cycle with normal print quality.	
Electrostatic Durability:	No hardware errors up to ± 10KV.	
	(No unrecoverable software errors)	
	Components can withstand up to ± 15KV without damage.	
Rush Current:	1/2 cycle, 50A or less	
Insulation Resistance:	10M Ω or higher	
Dielectric Strength:	AC1000V is applied for one minute with no breakdowns (duration of one surge).	
Leakage Current:	0.25mA or less (100V model)	

DIMENSIONS

Dimensions:	Main Unit: 397mm (W) x 493mm (L) x 251mm (H)
Weight:	Approx. 7.5kg

RELIABILITY AND DURABILITY

Product Life:	Approx. 180,000 printed pages or five years, whichever comes first
MPBF:	25,000 sheets or more
MTBF:	3,000 hours (10 months) or more
Paper Feed Reliability	(when using the recommended paper under normal conditions)
Jam Rate:	1/2000 or less (not including multiple pages)
Misfeed:	1/2000 or less
Multiple Page Feed Rate:	1/500 or less
Paper Wrinkling:	1/1000 or less
Paper Leading Edge Folds:	1/1000 or less (corner folds more than 1mm)

APPLICABLE CERTIFICATION STANDARDS AND REGURATIONS

The specifications of this engine meet the certification standards and regulations indicated below. There are cases in which the standards and regulations apply differently to products, including the controller, depending on their destination.

[Safety Standards]

Table 1-2. Safety Standards

Model Name	Applicable Certification
120V Model	UL 1950 CSA 22.2 No.950
200V Model	TÜV-GS (EN60950) NEMKO (EN60950)

[Safety Regulations]

Table 1-3. Safety Regulations

Model Name	Applicable Certification
120V Model	FDA (NCDRH) Class 1
200V Model	TÜV-GS (EN60825) NEMKO (EN60825)

[EMC]

Table 1-4. EMC

Model Name	Applicable Certification
100V Model	CNS 13438 CISPR22 (Taiwan) FCC Part15 Subpart B Class B/CSA C108.8 Class B
200V Model	EC EMC Directive 89/336/PEC EN55022 Class B EN61000-3-2 EN61000-3-3 EN50082-1 AS 3548 (Australia)

☐ Power Consumption:

In compliance with international Energy Star standards.

☐ Others:

Toner: Does not affect human body (in accordance with OSHA, TSCA, EINECS and CSCL).

OPC: Does not affect human body (in accordance with OSHA).

Ozone Emissions: Conforms to UL 478, 5th version.

Materials: Conforms to Swiss environmental protection laws (does not include CdS).

☐ Ozone: 0.02 ppm or less

☐ Potential Toxicity: OPC, toner, and plastic parts are nontoxic.

☐ Noise: Stand-by: 30 dB (A) or less

In operation: 47.0 dB (A) or less

1.3 PAPER SPECIFICATIONS

The types of paper which can be used with EPL-5700L/5700i are described below.

PAPER TYPES

Normal Paper: PPC, recycled paper 60 to 90g/m^2 (16 to 24lbs)

Special Paper: Labels, Japanese official postcards, OHP films, color paper, thick paper (90 to 157g/m^2), special DTP, and letterhead

CAUTION

■ **The paper types listed below cannot be used with this printer.**

- Carbon paper, non-carbon paper, thermal transfer paper, impact paper, and acidic paper.
- Paper which has been used with a thermal transfer or ink-jet printer.
- Paper which is too thick or too thin.
- Wet (damp) paper.
- Paper to which a special coating has been applied, or colored paper which has gone through surface processing.
- Paper whose surface is too smooth or too rough, or paper whose texture is different on the front and back.
- Paper with holes for binders or perforations.
- Folded, curled, or damaged paper.
- Paper of irregular shape or not cut with right angles.
- Paper with labels that come off easily.
- Paper with glue, staples, or paper clips attached.
- Special ink-jet paper.

■ **When using illustrated postcards, paper particles may adhere to the paper feed roller and cause paper feed difficulty. Therefore, it will be necessary for users to perform cleaning as indicated in Chapter 6 “Maintenance”.**

PAPER CLASSIFICATIONS

Table 1-5. Paper Classification

Paper Supply	Normal Paper	Special Paper				
		OHP	Japanese Official Postcard	Label	Thick Paper	Envelope
Paper Tray	○	◆	◆	◆	◆	◆
Lower Cassette	○	X	X	X	X	X

○: Can guarantee paper feed reliability and image quality. However, this is limited to generally used paper.

◆: Can print characters. However, this is limited to generally used paper.

X: Cannot feed.

PAPER SIZE

Table 1-6. Paper Size

Paper Type	Paper	Size mm (inch)	Paper Tray	Manual Feed Slot	Optional Lower Cassette
Normal Paper	A4	210 x 297	O	O	O
	A5	148 x 210	O	O	-
	JIS-B5	182 x 257	O	O	-
	Letter	(8.5) x (11)	O	O	-
	Half Letter	(5.5) x (8.5)	O	O	-
	Legal	(8.5) x (14)	O	O	-
	EXE	(7.25) x (10.5)	O	O	-
	Government Legal	(8.5) x (13)	O	O	-
	Government Letter	(8) x (10.5)	O	O	-
	F4	210 x 330	O	O	-
Special Paper	Postcard	100 x 148	O	O	-
	Monarch	98.43 x 190.5	O	O	-
	C10	104.78 x 241.3	O	O	-
	DL	110 x 220	O	O	-
	C5	162 x 229	O	O	-
	C6	114 x 162	O	O	-
	International-B5	176 x 250	O	O	-

O: Applicable

1.4 PANEL OPERATION

1.4.1 Power Switch

Power Switch is located on the left rear side of the printer, and it controls power on/off.

1.4.2 Control Panel

Control Panel is located at the right front edge of the printer, and it consists of two LED lamps.

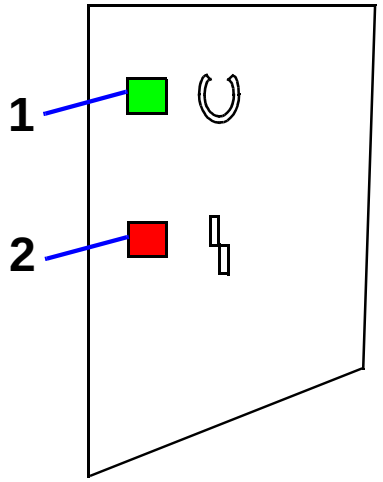

Figure 1-2. Control Panel

Table 1-7. LED Lamps

	Name	Color
1	Ready Lamp	Green
2	Error Lamp	Red

FLASHING LED

Table 1-8. Meaning of Flashing LED Lamps

Ready Lamps	Error Lamp	Meaning
OFF	OFF	Power OFF.
ON	OFF	Possible to print.
Flashing	OFF	Warming up, receiving data
OFF	Flashing	Recoverable error (including paper out)
OFF	ON	Service call error

CHECK POINT

- **Since the EPL-5700L/5700i is a host-based printer, printer settings cannot be made on the control panel.**
- **Status sheet can be printed from the printer driver.**

1.5 RAM EXPANSION

If memory shortage occurs, the printer outputs a misprint and an error message appears on the host screen. In such a case, it is necessary to install expansion memory RAM (RAM SIMM).

The recommended RAM capacity for conditions of use are as shown below. (However, this does not include images with extremely poor compression ratio.)

Table 1-9. Recommended RAM Capacity

No RAM Expansion	• MicroGray printing may not be possible at 600 dpi. • For a host with slow transfer speed, normal 600 dpi printing may not be possible.
4MB Expansion	Printing is possible under all conditions

CAUTION

The memory shown below cannot be used with the EPL-5700L/5700i. The CPU of the printer is 16bit, but the following memory is not designed to allow access at 16bit.

- **SAMSUNG KMM5328104**

1.6 OPTIONS AND CONSUMABLE PRODUCTS

Optional lower cassette unit and printer cables for EPL-5700L/5700i are the same as options for EPL-5700.

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CHAPTER

2

OPERATING PRINCIPLES

2.1 OPERATING PRINCIPLES OF MECHANISM

The EPL-5700L/5700i adopts the same mechanism as used in the previous model. Refer to the EPL-5700 Service Manual for the detailed operating principles of each mechanism.

2.2 ELECTRIC CIRCUIT

Since the Electric Circuit of this printer is basically the same as that of EPL-5700, this section explains only about the Main Control Board and its related parts.

2.2.1 Operating Principles of Controller

The C292 Main Board, which functions as a controller of the printer, consists of the Main Controller and the Engine Controller.

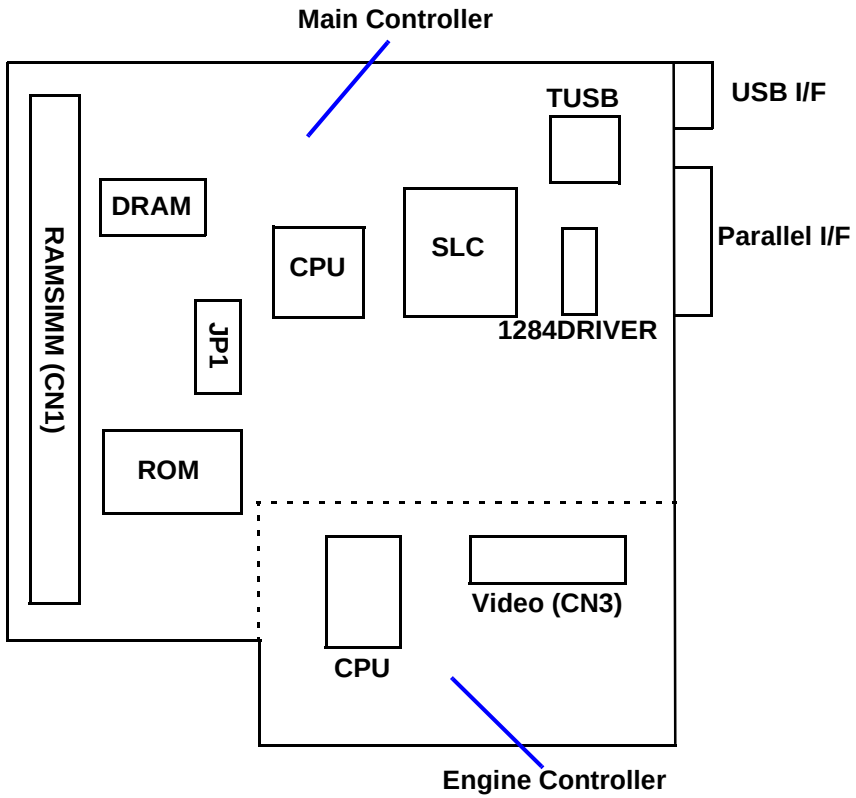

Figure 2-1. C292 Main Board

The Main Controller processes print data sent from the host computer and generates video signal.

The Engine Controller receives video signal from the Main Controller and drives the engine to print.

FUNCTIONS OF THE MAIN CONTROLLER

- Communication with the host computer (receiving print data and sending status).
- Processing the print data (analyzing command and generating video signal).
- Sending the video signal to the Engine Controller.
- Monitoring panel or switch conditions.

FUNCTIONS OF THE ENGINE CONTROLLER

- Receiving the video signal and sending engine status.
- Monitoring sensors.
- Controlling the optional lower cassette.

Block diagram of the C292 Main Board and function of each device are shown on the following page.

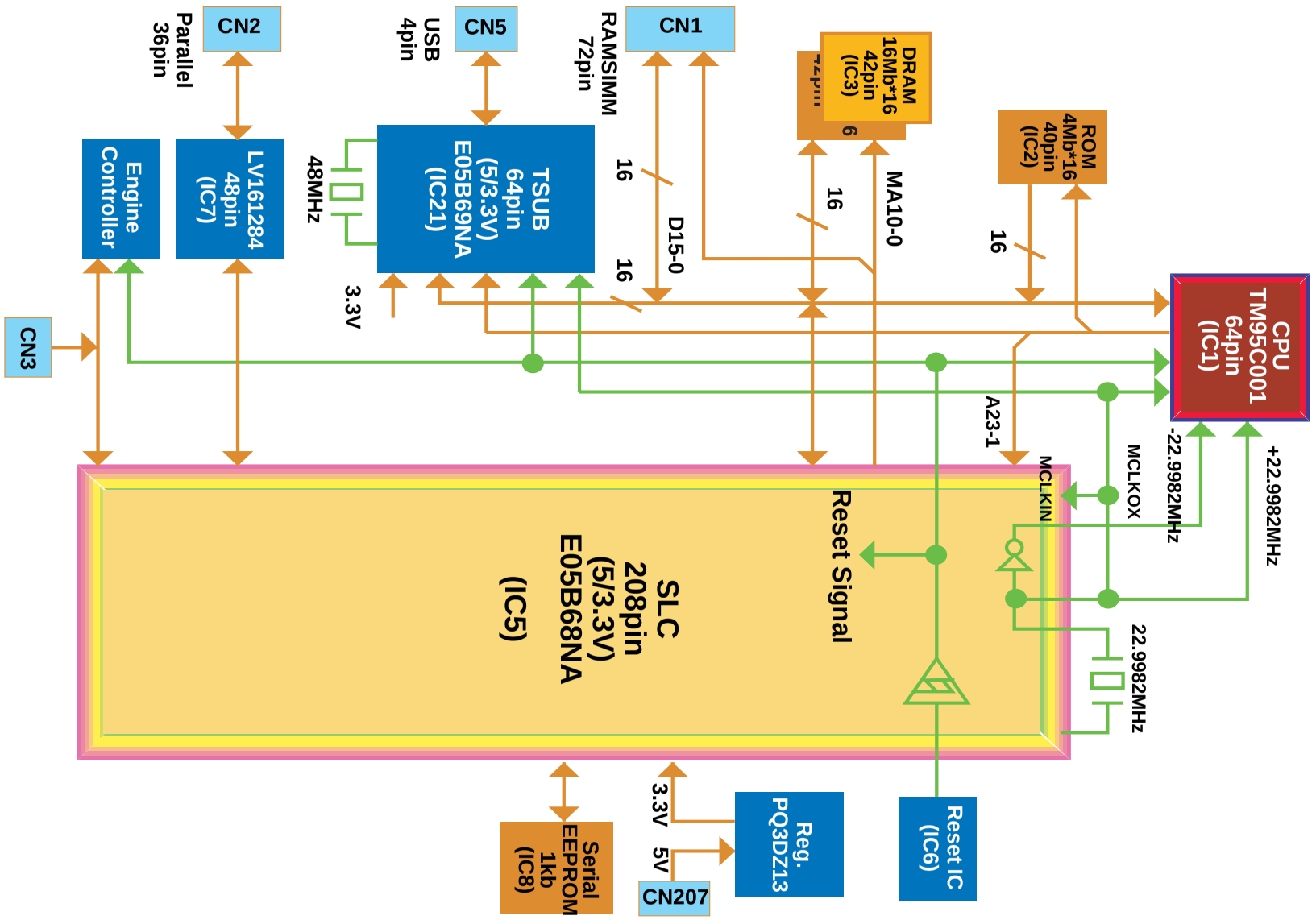

Figure 2-2. Block Diagram of the C292 Main Board

Table 2-1. C292 Main Board - Main Controller

Name	Location	Functions
CPU TM95C001	IC1	16bit CISC-CPU driven at clock frequency 25MHz. Package: 64pin, QFP Power supply voltage: 5V Single
ASIC (SCL) E05B68NB	IC5	This ASIC controls the following: • Memory (RAM/ROM) • DMA (Video, I/O) • RIT (Resolution Improvement Tech.) / PGI (Photo Grade Improvement) function. • Video I/F (communication with the Engine Controller) • Panel LED Package: 208 pin, QFP Power supply voltage: 5V/3.3V Operation frequency: DMAC max 25MHz PIF max 25MHz DCMP max 60MHz RIT max 100MHz
ASIC (TUSB) E05B69NA	IC21	Controls USB I/F. Package: 64 pin, QFP Power supply voltage: 5V/3.3V Operation frequency: max 48MHz
TTL SN74LV162184DGGR	IC7	1284 driver. Receives / sends parallel I/F signal. Power supply voltage: 5V
DRAM M5M418165CJ-6	IC3	One EDO with 16Mb, 16bit, 60ns is mounted. Operates as standard memory.
ROM HN27C4000G-10	IC2	4Mb, 16bit, and 40pin module. Stores the control program.
RAMSIMM	CN1	72 pin, memory expansion connector

Table 2-1. C292 Main Board - Main Controller (continued)

Name	Location	Functions
USB I/F	CH5	USB connector with the host PC
Parallel I/F	CH2	Parallel connector with the host PC
Control Panel I/F	CN4	LED-control connector

Table 2-2. C292 Main Board - Engine Controller

Name	Location	Functions
CPU M38073E4FS	IC201	Controls the engine.
Motor Drive IC TEA3718SDP	IC204/ IC205	Drives the main motor.

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CHAPTER

3

TROUBLESHOOTING

3.1 OVERVIEW

3.1.1 Overview

Since the EPL-5700L/5700i is a host-based printer, most problems can be solved by operating “EPSON Printer Window !3” on the host computer. When an error occurs, “EPSON Printer Window !3” appears on the host screen as a pop-up window, which provides detailed instructions on how to handle each error. Most of the errors will be cleared by following the instructions of the pop-up window.

Also refer to the section “Troubleshooting” of the EPL-5700L/5700i User’s Guide, which gives instructions for solving general problems.

3.1.2 Electric Check Point

Refer to 3.2 of the EPL-5700 Service Manual.

3.2 HANDLING SERVICE CALL ERRORS

This section describes various conditions which may cause fatal errors, and provides remedies for such errors.

3.2.1 Service Call Error Conditions

Note that the following operations will result in the Service Call Errors without fail.

- ☐ Bringing up the BIOS settings screen with the printer power on.
- ☐ Turning on - off - on the printer while printing.
- ☐ Turning on "Apple Talk" while using EPSON LINK3.
- ☐ Using the printer driver other than designated for the EPL-5700L/5700i.

3.2.2 Error LED Lamp

- ☐ Ready Lamp: OFF
- ☐ Error Lamp: ON (Red)

3.2.3 Error Code Display and Remedies

In most Service Call Error cases, the printer recovers from the error if it is turned off and on again. However, in the case where the printer does not recover from the error even after the above operation, check the Service Call Error Code and take appropriate measures as shown in Table 3-1.

SERVICE CALL ERROR CODE DISPLAY

- ☐ If a Service Call Error occurs and "EPSON Printer Window!3" pops up on the screen, press Ctrl+Shift+Enter together to display the error code.

CAUTION

This function should not be made open to users.

Table 3-1. Service Call Error Codes

Service Call Error Code		Error Description	Remedy
I0001		Protocol Error	Replace the Main Board.
C1999		Video Error	Replace the Main Board.
C1999		Data Expansion Error	Replace the Main Board.
C1000		Standard RAM Check Error	Replace the Main Board.
C1200		EEPROM Access Error	• Initialize EEPROM. • Replace the Main Board.
C2000		Software Error	• Reboot the host PC. • Reinstall the driver. • Replace the Main Board.
Win	**Mac**		
E0003	E2000	Abnormal Fusing	Refer to 3.4.2.3 of the EPL-5700 Service Manual.
E0006		Abnormal Polygon Motor	Refer to 3.4.2.2 of the EPL-5700 Service Manual.
E0009		Abnormal Laser	Refer to 3.4.2.1 of the EPL-5700 Service Manual.
E0014		Communication Error with Engine	• Replace the engine. • Replace the Main Board.

RESETTING EEPROM

1. Open the printer's "Properties" (or "Document Defaults" for Windows NT4.0), and select "Optional Settings".
2. Click the left button of the mouse while pressing ALT+CTRL+SHIFT+W, and the dialogue box shown below will appear.

Figure 3-1. Reset the EEPROM

3. Click "OK", and EEPROM will be reset.

CAUTION

The above function should not be made open to users.

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CHAPTER

4

DISASSEMBLY AND ASSEMBLY

4.1 OVERVIEW

The following parts and units of the EPL-5700L/5700i are different from those of EPL-5700.

- ☐ Control Panel
- ☐ Top cover securing method
- ☐ Main Board
- ☐ USB I/F

The other mechanism and exterior parts are exactly the same as used in EPL-5700. Therefore, this chapter contains the disassembly and assembly procedures only for the parts and units mentioned above. Refer to the EPL-5700 Service Manual for other items.

4.2 DISASSEMBLY AND ASSEMBLY

4.2.1 Control Panel Removal

Unlike the previous model, the EPL-5700L/5700i has only two LED lamps and no other functions on the control panel. However, exterior of the panel is exactly the same as the previous model, and so is the way the panel is fixed on the printer. Refer to the EPL-5700 Service Manual (pp. 4 - 10) for the Control Panel disassembly and assembly procedures.

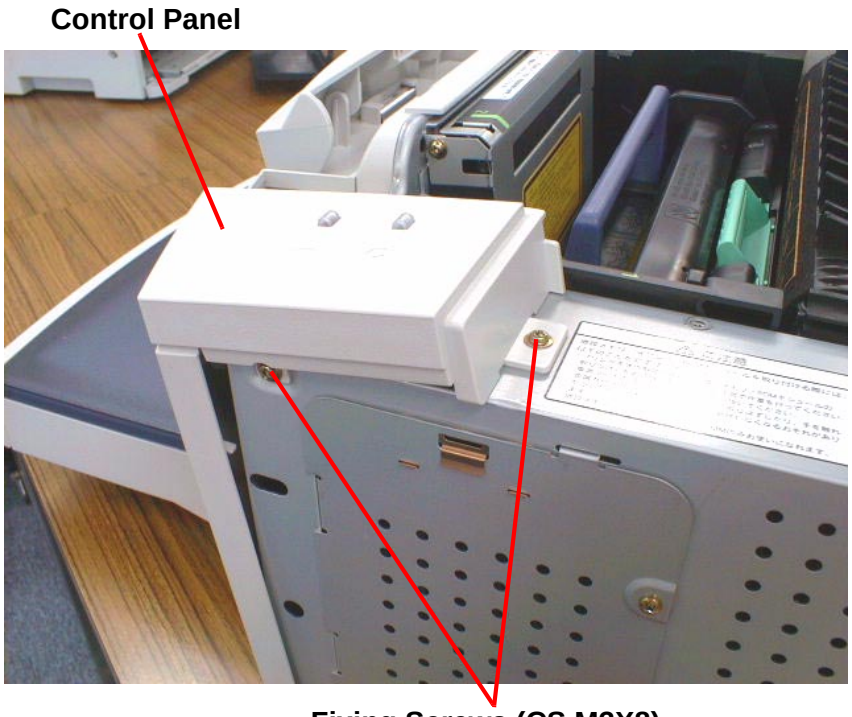

Figure 4-1. Control Panel Removal (No. 1)

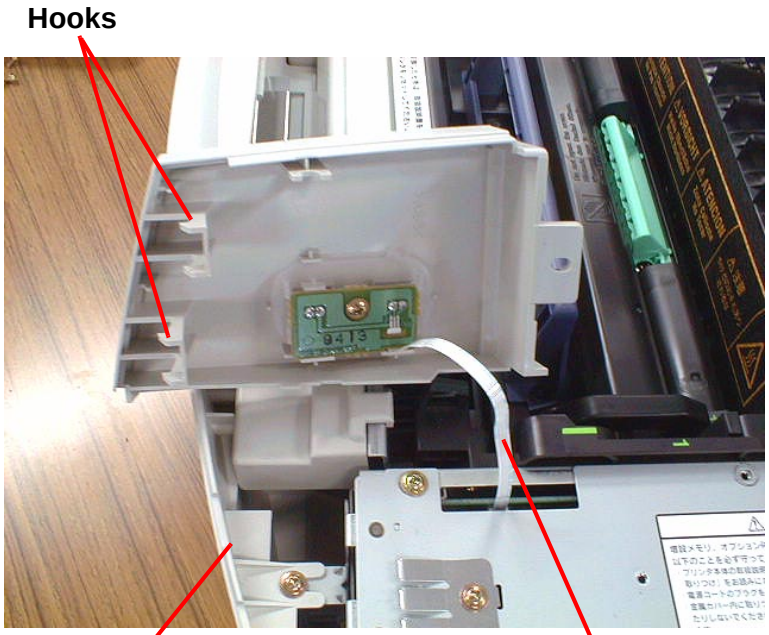

Figure 4-2. Control Panel Removal (No. 2)

4.2.2 Top Cover Removal

1. Remove the right cover (See section 4.2.2 of the EPL-5700 Service Manual).
2. Remove the control panel (See section 4.2.1 of this manual).
3. Remove the front cover (See section 4.2.7 of the EPL-5700 Service Manual).
4. Remove the left cover (See section 4.2.10 of the EPL-5700 Service Manual).

5. Remove a screw (CS M3x8) and a plate located on the upper part of the shield cover of the Main Control Board (see Figure 4-3 below).

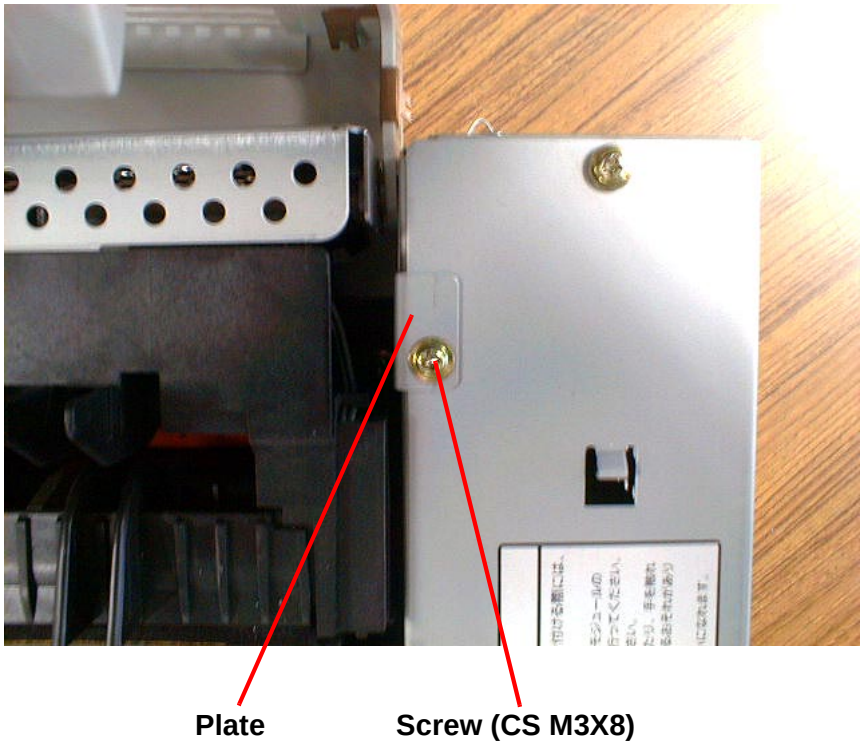

Figure 4-3. Plate Removal

6. Push both left and right hinges of the top cover outward as shown in Figure 4-4, and remove the top cover.

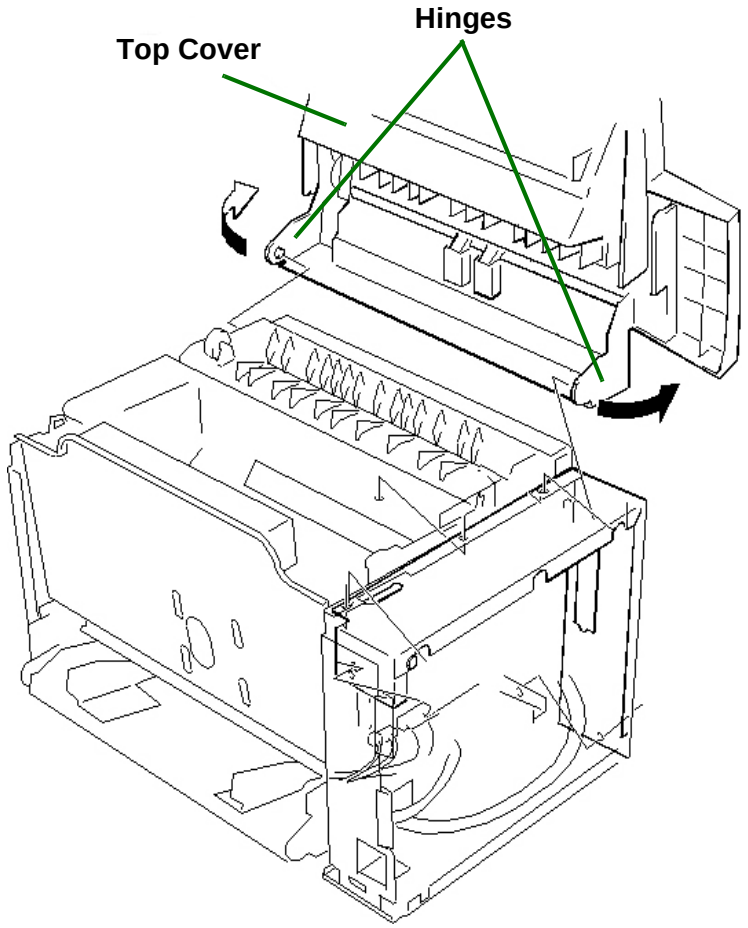

Figure 4-4. Top Cover Removal

4.2.3 Main Control Board Removal

1. Remove the right cover (See section 4.2.2 of the EPL-5700 Service Manual).
2. Remove the control panel (See section 4.2.1 of this manual).
3. Remove the front cover (See section 4.2.7 of the EPL-5700 Service Manual).
4. Remove 10 screws (CS M3x8) securing the shield cover of the Main Control Board, and remove the shield cover (See section 4.2.9 of the EPL-5700 Service Manual).
5. Remove the harnesses which are connected to the connector on the Main Control Board.
6. Remove 10 screws (CS M3x8) securing the Main Control Board on the printer (See section 4.2.9 of the EPL-5700 Service Manual).
7. Remove a fixing screw for USB interface (CS M3x6) and two fixing screws for parallel interface (CP M3x6), and remove the board.

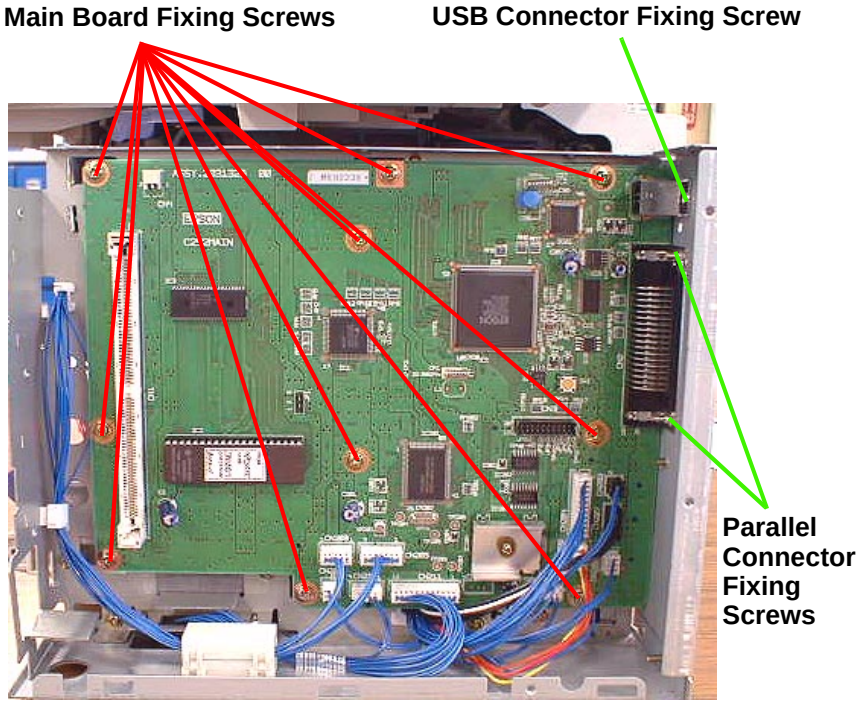

Figure 4-5. Main Control Board Removal

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CHAPTER

5

ADJUSTMENTS

Refer to the EPL-5700 Service Manual, Chapter 5 for adjustment procedures.

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CHAPTER

6

MAINTENANCE

Refer to the EPL-5700 Service Manual, Chapter 6 for maintenance procedures.

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CHAPTER

7

APPENDIX

7.1 CONNECTOR PIN ASSIGNMENTS

The figure below shows interconnections with the Main Board, and the table on the right shows function of each connector.

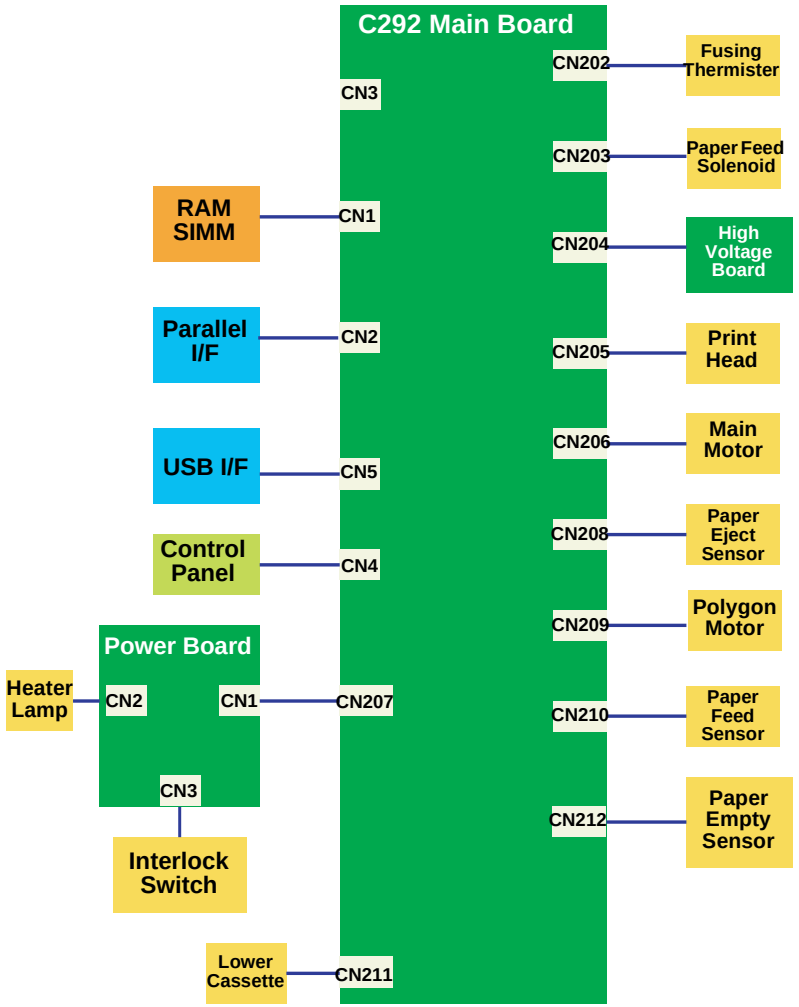


Figure 7-1. Interconnection with the Main Board

Table 7-1. Connector List

Board	Connector	Function	Reference
C292 MAIN	CN1	For Expanded RAMSIMM, 72 pin	EPL-5700 Service Manual, Table 7-5 and 7-7
	CN2	Parallel Interface, 36 pin	EPL-5700 Service Manual, Table 7-8
	CN3	Video (not used)	-
	CN4	Control Panel (LED Control)	-
	CN5	USB Interface	Table 7-2
	CN202	Fusing Thermister	-
	CN203	Paper Feed Solenoid Control	-
	CN204	High Voltage Board	-
	CN205	Print Head Control	-
	CN206	Main Motor Control	-
	CN207	Power Board	-
	CN208	Paper Eject Sensor	-
	CN209	Polygon Motor Control	-
	CN210	Paper Feed Sensor	-
	CN211	Lower Cassette Control	-
	CN212	Paper Empty Sensor	-
High Voltage Board	CN1	Main Control Board	-
Power Board	CN1	Main Control Board	-
	CN2	Fusing Heater Lamp Control	-
	CN3	Interlock Switch Control	-

Table 7-2. Connector CN5 Pin

No.	Signal Name	Direction	Function
1	POWER	-	Cable Power Supply
2	D-	Bi-directional	Data Signal
3	D+	Bi-directional	Data Signal
4	GND	-	Ground

7.2 CIRCUIT BOARD COMPONENT LAYOUT

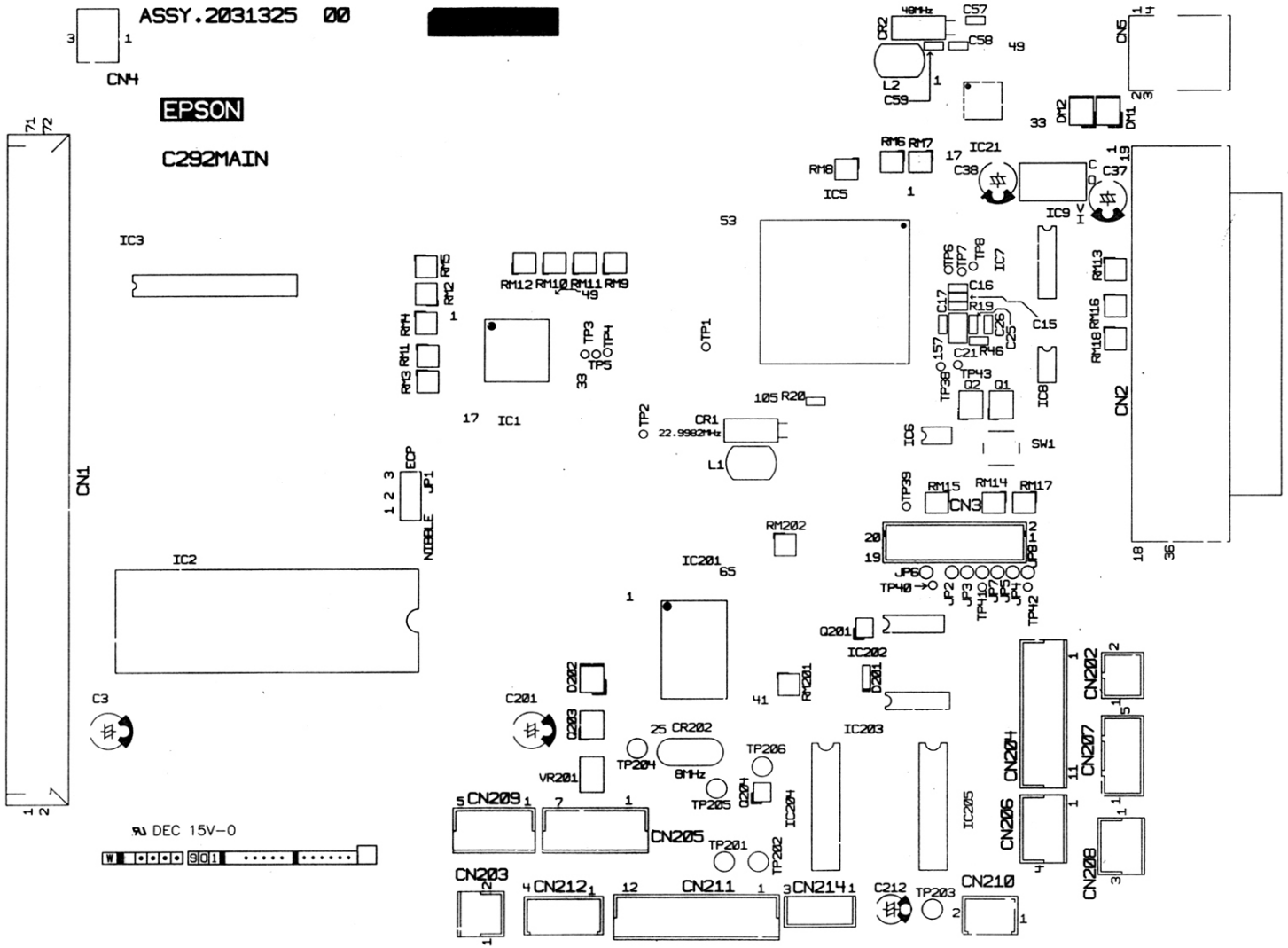


Figure 7-2. C292 Main Control Board Component Layout

7.3 EXPLODED DIAGRAMS & ASP LIST

7.3.1 Exploded Diagrams

Refer to the EPL-5700 Service Manual 7.3 “Exploded Diagram” as the exterior and mechanism of the EPL-5700L/5700i are basically the same. The only difference with the previous model is “PLATE”, which has been newly added to (6) FRAMES I, and its exploded diagrams are shown on the following pages.

7.3.2 ASP List

Table 7-3. Parts List

Diagram No.	Parts Code	Parts Name
1-01	1040689	TOP COVER ASSY.
1-03	1048628	LEFT COVER
1-05	1048629	FRONT COVER
1-06	1040693	TRAY
1-07	1040697	CASSETTE BODY
1-08	1013911	GEAR 14T
1-09	1040698	TABLE
1-10	1040699	GUIDE
1-11	1040700	GUIDE
1-12	1040694	RIGHT COVER
1-13	1040701	COVER
1-14	1040695	COVER
1-15	1040696	TRAY ASSY.
1-16	1040702	SHEET
1-17	1050576	LOGO PLATE
450	2031327	PANEL
200	2032935	BOARD ASSY., MAIN
2-01	1040703	GUIDE
2-02	1048622	ROLLER
2-03	1048624	GUIDE LEVER
2-04	1040706	GEAR ASSY.
2-05	1040709	TORSION SPRING
2-06	1040710	COVER

Table 7-3. Parts List (continued)

Diagram No.	Parts Code	Parts Name
2-07	1040711	ROCK LEVER
2-08	1040712	PLATE
3-01	1021636	BUSHING
3-02	1040714	CAM
3-03	1040715	ROLL
3-04	1048613	ROLLER
3-05	1040717	ROLLER
3-06	1040718	HOLDER
3-07	1040719	PRESSURE SPRING
3-08	1040720	JOINT
3-09	1048612	BUSHING
3-10	1040722	GEAR 18T
3-11	1048614	SHAFT
3-12	1040724	GEAR 36/54T
3-13	1040725	GEAR 36T
3-14	1040726	SHOULDER SCREW
3-15	2027738	SOLENOID
3-16	1040727	TORSION SPRING
3-17	1040728	PLATE
3-18	1040729	PLATE
3-19	1014684	PIN
3-20	1040730	LEVER
3-21	1040731	TORSION SPRING
3-22	1040732	ARM
3-23	1040733	SEPARATED PAD

Table 7-3. Parts List (continued)

Diagram No.	Parts Code	Parts Name
3-24	1040734	PRESSURE SPRING
3-25	2027737	PAPER PICK UNIT
4-01	1040801	HOLDER
4-02	1040802	GEAR 36T
4-03	1040803	BUSHING
4-04	1040804	FUSING ROLLER-FNT
4-05	2028491	TUBE LAMP (H1 120V)
4-06	1040805	FUSING ROLLER-RR
4-07	1040806	BUSHING
4-08	1040807	PRESSURE SPRING
4-09	1040808	GUIDE
4-10	2027762	HARNESS
4-11	2027763	HARNESS
4-12	2027764	PHOTO INTERRUPTER (PS3)
4-13	2027765	ACTUATOR
4-14	1040809	BUSHING
4-15	1040810	SEPARATOR
4-16	1040811	TERMINAL
4-17	2027766	THERMISTOR (TH1)
4-18	2027767	THERMOSTAT (TS1)
4-19	1040813	HOLDER
4-20	1048620	GUIDE
4-21	1040815	SHEET
4-22	1048615	HOUSING ASSY.
4-23	2028489	FUSING UNIT (120V)

Table 7-3. Parts List (continued)

Diagram No.	Parts Code	Parts Name
4-28	1048616	HOLDER L
4-29	1048617	HOLDER R
4-30	1048618	STOPPER L
4-31	1048619	STOPPER R
4-32	1013954	SEPARATOR ROLL
5-01	1048630	FRAME
5-04	2027740	MOTOR (M1)
5-05	1040738	GEAR 40T
5-06	1040739	GEAR 18/50T
5-07	1040740	GEAR 20/44T
5-08	1040741	GEAR 20/52T
5-09	1040742	GEAR 24/30T
5-10	1040743	GEAR 20/48T
5-11	1040744	GEAR 20/32T
5-12	1040745	GEAR 17/42T
5-13	1040746	GEAR 26T
5-14	1040747	GEAR 21/50T
5-15	1040748	GEAR 17T
5-16	1040749	GEAR 27T
5-17	1040750	GEAR 18/42T
5-18	1040752	GEAR 17/25T
5-19	1040753	GEAR 21/56T
5-20	1040754	GEAR 20T
5-21	1040755	GEAR
5-22	1040756	GEAR 22/43T

Table 7-3. Parts List (continued)

Diagram No.	Parts Code	Parts Name
5-23	2027744	PWB-HV
5-24	1040757	PLATE
5-25	2027745	HARNESS
5-26	2027746	HARNESS
5-27	2027747	SWITCH (PS2)
5-28	1040758	PRESSURE SPRING
5-29	1040759	GUIDE
5-30	1040760	GUIDE ASSY.
5-31	1040761	GEAR 21T
5-32	1040762	BUSHING
5-33	1040763	ROLLER
5-34	1040764	GUIDE
5-35	1040765	BUSHING
5-36	1040766	BUSHING
5-37	1040767	PRESSURE SPRING
5-38	1040768	PORYESTER FILM
5-39	1040769	TORSION SPRING
5-40	2027748	HARNESS
5-41	2027739	DRIVE UNIT
5-42	2027743	TRANSFER UNIT
6-01	1040770	COVER
6-02	2032076	HARNESS
6-03	2027750	SWITCH (PE1)
6-04	1040771	BRACKET
6-05	1040772	HOLDER

Table 7-3. Parts List (continued)

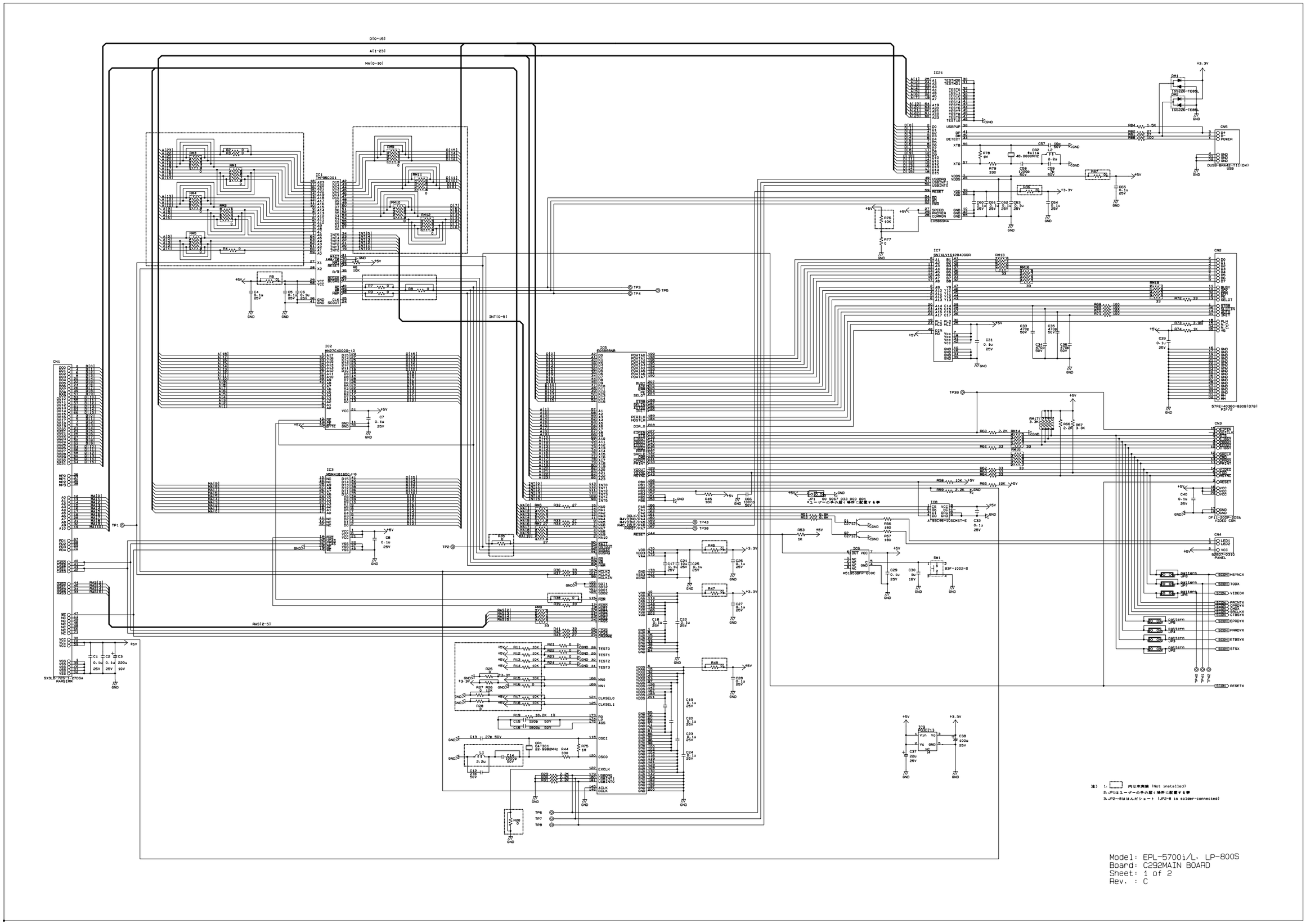
Diagram No.	Parts Code	Parts Name
6-06	1048621	RUBBER FOOT
6-07	1040775	PORYESTER FILM
6-08	1040776	GUIDE PLATE
6-09	2027751	HARNESS
6-10	2032079	SWITCH
6-12	1031615	SHOULDER SCREW
6-13	2027754	HARNESS
6-15	1040779	COVER
6-16	1040780	BRACKET
6-17	1040782	GROUND PLATE
6-18	1040783	COVER
6-19	1040784	PLATE
6-20	1040785	WASHER
6-21	2027757	PWB SUPPORT 6.35H
6-22	2027758	IC
6-25	1042729	PLATE
7-01	1040786	GUIDE
7-02	2030662	PWB-PU (PU1)
7-03	2013598	POWER CORD 120V
7-04	1040787	BRACKET
7-05	1040788	GUIDE PLATE
7-06	1040789	GUIDE PLATE
7-07	1040790	SHEET
7-08	1040791	SHEET
7-09	1040792	LIFTING PLATE

Table 7-3. Parts List (continued)

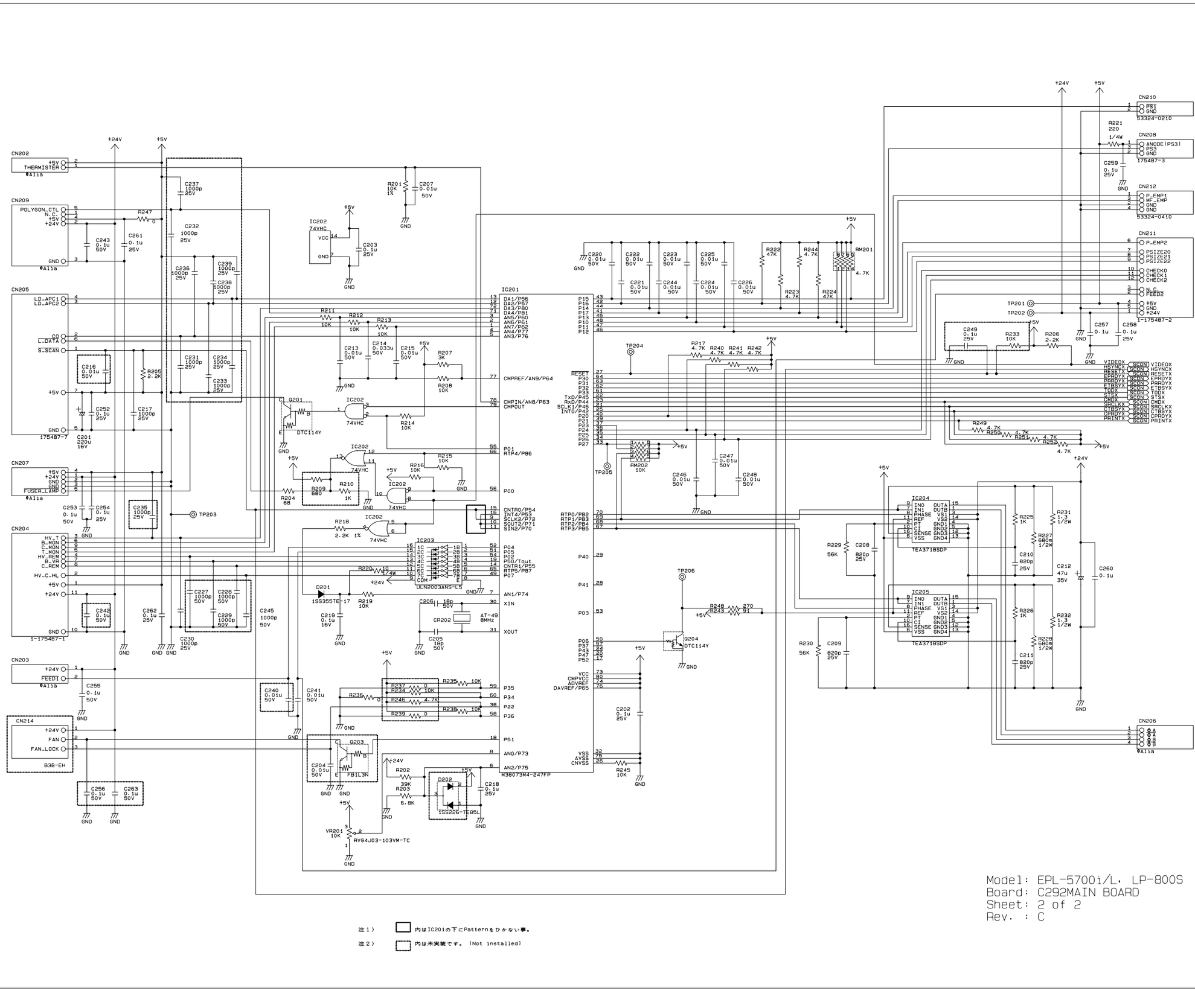
Diagram No.	Parts Code	Parts Name
7-10	1048627	HOLDER
7-11	1013911	GEAR 14T
7-12	2027759	PRINT HEAD UNIT
7-13	1040794	HOLDER
7-14	1040795	TORSION SPRING
7-15	1040796	WIRING SADDLE 18.5
7-16	1015333	EDGE COVER 8.5H
7-17	1004683	EDGE COVER 15H

7.4 CIRCUIT DIAGRAM

Circuit diagrams of the Main Control Board is shown on the following pages.



注) 1. [ ] 内は未実装 (Not installed)
2.JP1はユーザーの手の届く場所に配置する事
3.JP2-8はんだショート (JP2-8 is solder-connected)


CN202
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CN210
CN208
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CN206
TP201
TP202
TP203
TP204
TP205
TP206
Q201
Q202
Q203
Q204
D201
D202
M38073M4-247FP
TEA3718SDP
ULN2003ANS-L5
RVG4J03-103VM-TC
Model: EPL-5700i/L, LP-800S
Board: C292MAIN BOARD
Sheet: 2 of 2
Rev. : C
注１）内はIC201の下にPatternをひかない事。
注２）内は未実装です。 (Not installed)